CLAIMS

1. An optical film which is a layered product of a light scattering film that scatters and transmits light and is constituted by at least two phases or more having different refractive indexes each other, and a reflective polarizer by which light is selectively P/S converted.

2. The optical film according to Claim 1, wherein at least one of the phases which has a greater refractive index in the light scattering film has pillar structures extending in the thickness direction of the film, and the transmittance of the film in the normal direction of the film is not less than 4 %.

3. The optical film according to Claim 1 or 2, wherein axis lines of the pillar structures extending in the thickness direction of the light scattering film are in parallel with each other and the direction of the axis lines thereof are orientated in the normal direction to the film.

4. The optical film according to Claim 1 or 2, wherein axis lines of the pillar structures extending in the thickness direction of the light scattering film are in parallel with each other and the direction of the axis lines are inclined with respect to the normal direction to the film.

5. The optical film according to any one of claims 1 to 4, wherein difference in refractive indexes between at least two phases or more having different refractive indexes of the light scattering film is in a range of 0.005 to 0.1.

6. The optical film according to any one of claims 1 to 5, wherein said light scattering film is made from a polymer material having a radiation sensitive property.

7. The optical film according to any one of claims 1 to 6, wherein said reflective polarizer is of a lamination type.

8. The optical film according to any one of claims 1 to 6, wherein said reflective polarizer is a film making use of selective reflection characteristic of cholesteric liquid crystal.